Volume 134 September 1983

CONTENTS

Noise generation by a low-Mach-number jet. JOHN LAUFER and TA-CHUN YEN *page* 1

Noise generated by airfoil profiles placed in a uniform laminar flow. H. ARBEY and J. BATAILLE 33

On the organized motion of a turbulent plane jet. R. A. ANTONIA, L. W. B. BROWNE, S. RAJAGOPALAN and A. J. CHAMBERS 49

The destruction of temperature fluctuations in a turbulent plane jet. R. A. ANTONIA and L. W. B. BROWNE 67

The use of coloured smoke to visualize secondary flows in a turbine-blade cascade. C. H. SIEVERDING and P. VAN DEN BOSCHE 85

Anomalous refraction and conjugate solutions of finite-amplitude water waves. D. H. PEREGRINE and S. RYRIE 91

Flow between rotating disks. Part 1. Basic flow. A. Z. SZERI, S. J. SCHNEIDER, F. LABBE and H. N. KAUFMAN 103

Flow between rotating disks. Part 2. Stability. A. Z. SZERI, A. GIRON, S. J. SCHNEIDER and H. N. KAUFMAN 133

On integrals and invariants for inviscid irrotational flow under gravity. M. S. LONGUET-HIGGINS 155

Effect of boundary absorption upon longitudinal dispersion in shear flows. RONALD SMITH 161

Two hidden symmetries of the equations of ideal gasdynamics, and the general solution in a case of non-uniform entropy distribution. B. GAFFET 179

The final stage of decay of turbulence in stably stratified fluid. H. J. PEARSON and P. F. LINDEN 195

Solitary and periodic gravity–capillary waves of finite amplitude. J. K. HUNTER and J.-M. VANDEN-BROECK 205

The standing vortex behind a disk normal to uniform flow at small Reynolds number. TOSIO MIYAGI and TAKAHIRO KAMEI 221

Spinning modes on axisymmetric jets. P. J. R. STRANGE and D. G. CRIGHTON 231

The occurrence of separation in oscillatory flow. IAN J. SOBEY 247

Free-surface flows related to breaking waves. MARTIN GREENHOW 259

On surface gravity waves crossing weak current jets. JEROME SMITH 277

Convection driven by concentration- and temperature-dependent surface tension. CAROL L. MCTAGGART 301

On the structure and resolution of wall-pressure fluctuations associated with turbulent boundary-layer flow. GÜNTER SCHEWE 311

The creeping motion of immiscible drops through a converging/diverging tube. W. L. OLBRICHT and L. G. LEAL 329

Gravity currents moving along a lateral boundary in a rotating fluid. R. W. GRIFFITHS and E. J. HOPFINGER 357

Grain flow as a fluid-mechanical phenomenon. P. K. HAFF 401

The 'whistler-nozzle' phenomenon. A. K. M. F. HUSSAIN and M. A. Z. HASAN 431

REVIEWS

Thermodynamics and Gas Dynamics of Internal Combustion Engines, Volume I, by R. S. Benson, edited by J. H. Horlock and D. E. Winterbone 459

Geodynamics: Application of Continuum Physics to Geological Problems, by Donald L. Turcotte and Gerald Schubert 461

The Cambridge Photographic Atlas of the Planets, by G. A. Briggs and F. W. Taylor 464

Special Relativity: The Foundation of Macroscopic Physics, by W. G. Dixon 465

Theory of Laminar Flames, by J. D. Buckmaster and G. S. S. Ludford 466

SHORTER NOTICES 468

CORRIGENDUM 469

INDEX TO VOLUME 134 470